### Tuberculosis Epidemiology

Global, USA and Michigan

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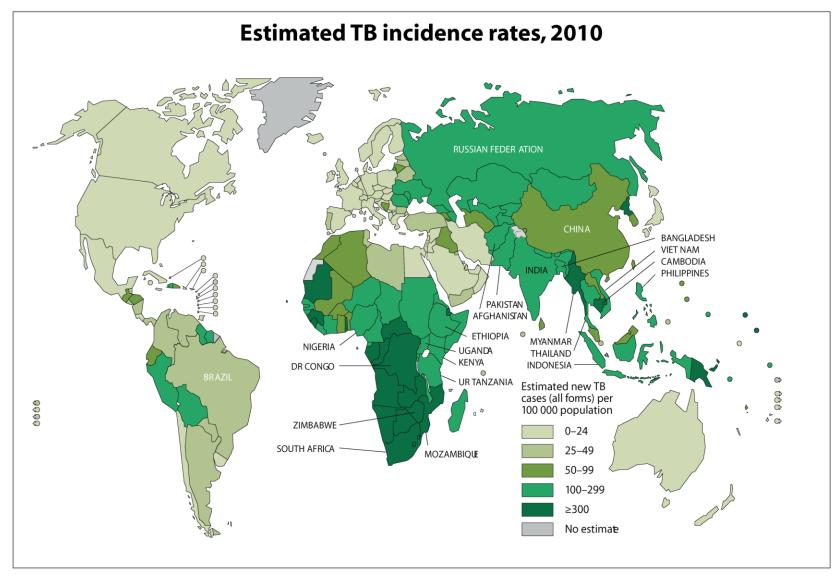
#### TB around the World (2010)

There were 8.8 million new TB cases

■ 1.1 million people died from TB, including 350,000 people with HIV

Absolute number of cases has been falling since 2006

\* Source: WHO



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

Source: *Global Tuberculosis Control 2011*. WHO, 2011.



#### High Burden Countries (WHO)

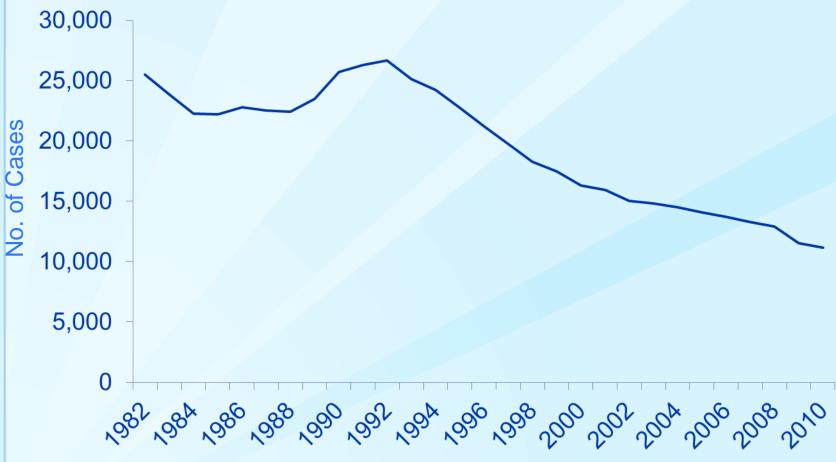
- Afghanistan
- Bangladesh
- Brazil
- Cambodia
- China
- Democratic Republic of the Congo
- Ethiopia
- India
- Indonesia
- Kenya
- Mozambique

- Myanmar
- Nigeria
- Pakistan
- Philippines
- Russian Federation
- South Africa
- Thailand
- Uganda
- United Republic of Tanzania
- Viet Nam
- Zimbabwe

### Tuberculosis in the USA







Year

\*Updated as of July 21, 2011



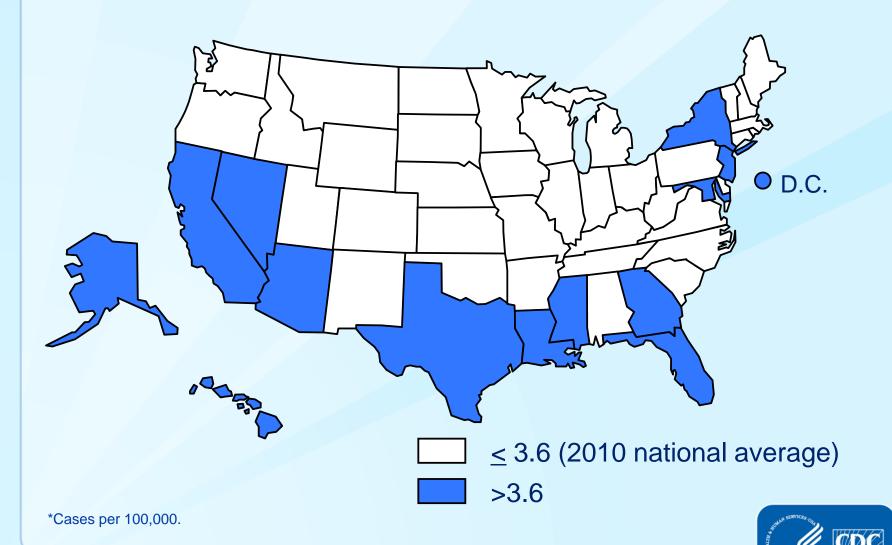
# TB Morbidity United States, 2005–2010

Year	No.	Rate*		
2005	14,068	4.8		
2006	13,732	4.6		
2007	13,286	4.4		
2008	12,905	4.2		
2009	11,537	3.8		
2010	11,182	3.6		

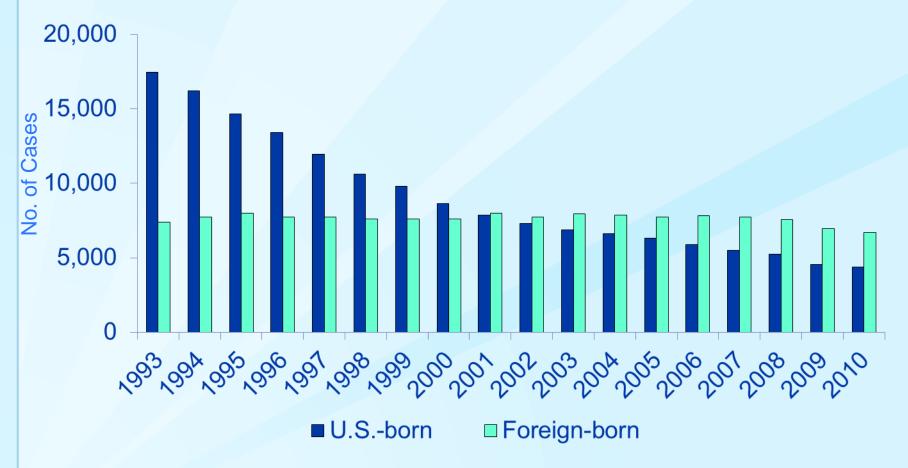
\*Cases per 100,000. Updated as of July 21, 2011



#### **TB Case Rates,\* United States, 2010**



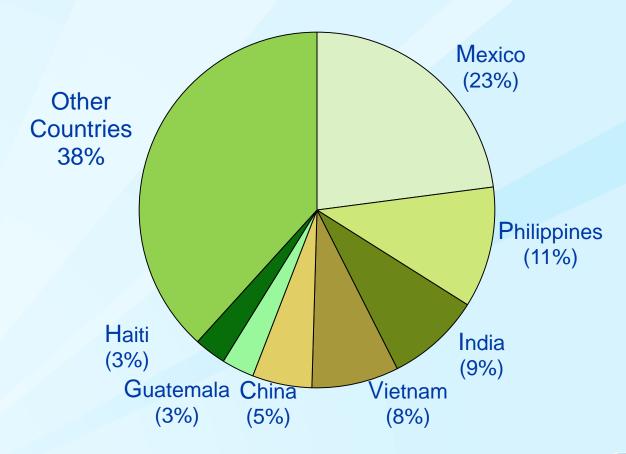
# Number of TB Cases in U.S.-born vs. Foreign-born Persons United States, 1993–2010\*



\*Updated as of July 21, 2011

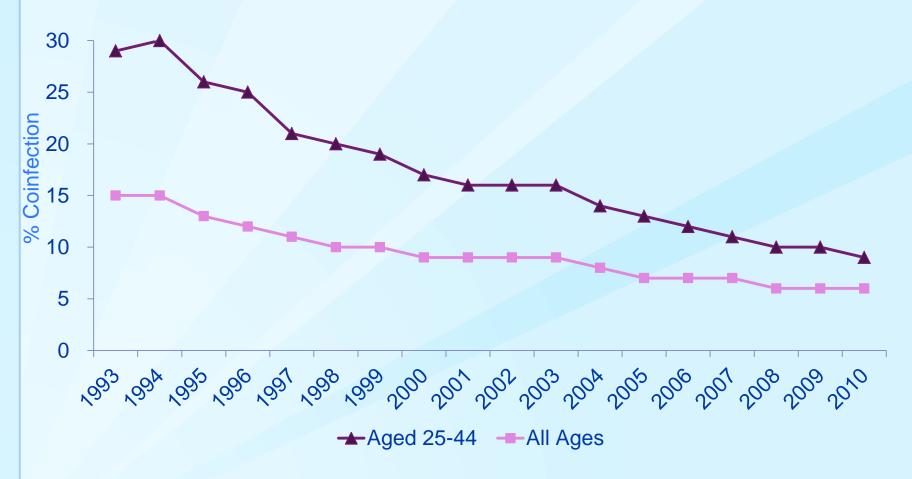


## Countries of Birth of Foreign-born Persons Reported with TB, United States, 2010





# Estimated HIV Coinfection in Persons Reported with TB, United States, 1993 – 2010\*



\*Updated as of July 21, 2011

Note: Minimum estimates based on reported HIV-positive status among all TB cases in the age group



# Michigan



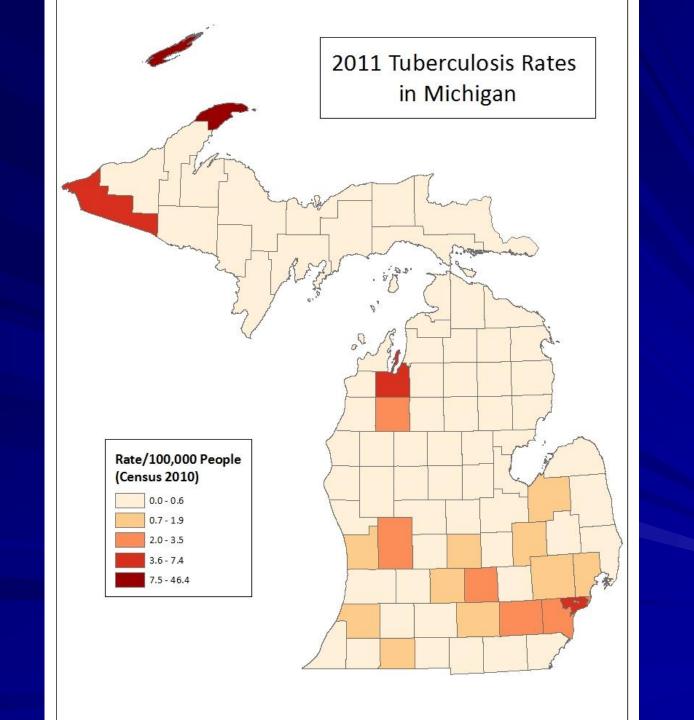
#### Tuberculosis in Michigan- 2011

- 170 cases reported → rate of 1.7/100,000
  - 7.6% decrease from 2010 (rate=1.9/100,000)
- Foreign-born cases decreased to 50% from 58.3% in 2010
- 76.5% of cases are located in Metro Detroit -Wayne (including Detroit), Oakland and Macomb
- 1 case of MDR TB
- 10% were homeless within the last year
- 22.4% abused alcohol, injection or non-injection drugs within the last year

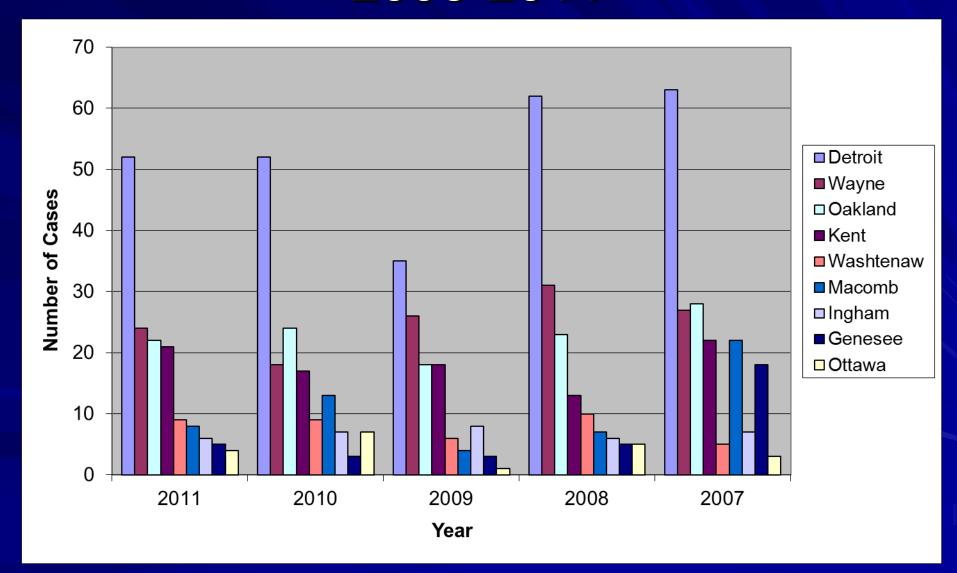
# 5 year summary on TB cases and incidence rates\* for the State of Michigan (2007-2011)

Year	2007	2008	2009	2010	2011	5 year average
Number of cases	226	188	144	184	170	182
Incident rates	2.3	1.9	1.4	1.9	1.7	1.8

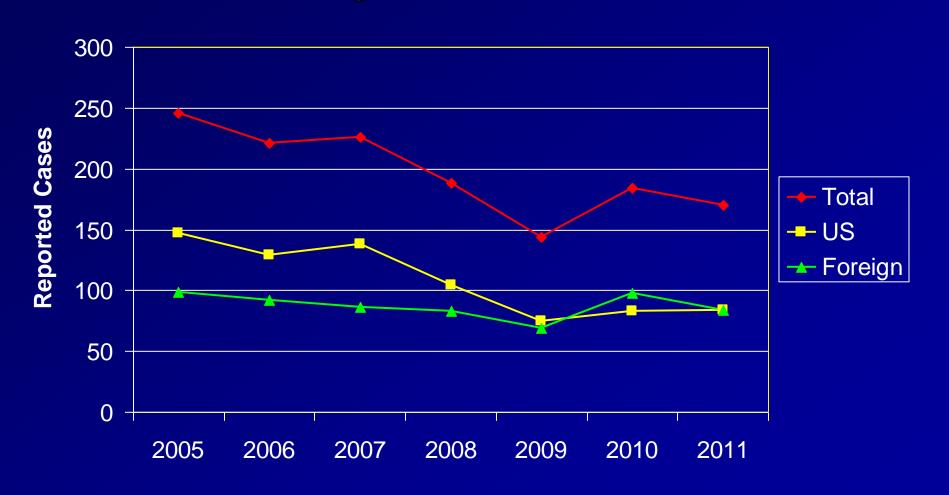
<sup>\*</sup>Rate per 100,000 population



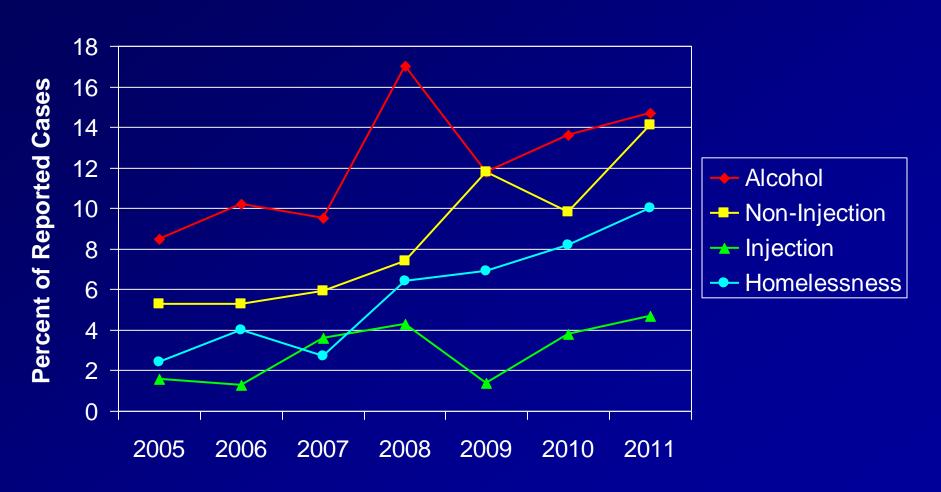
# High-Burden Areas in Michigan, 2006-2011



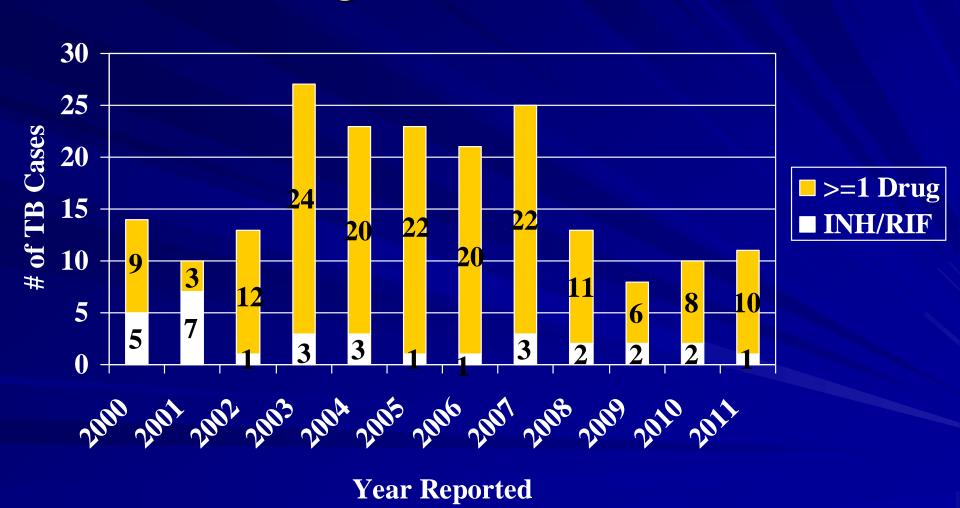
# Reported TB Cases Among US-born vs. Foreign-Born Persons, Michigan, 2005 - 2011



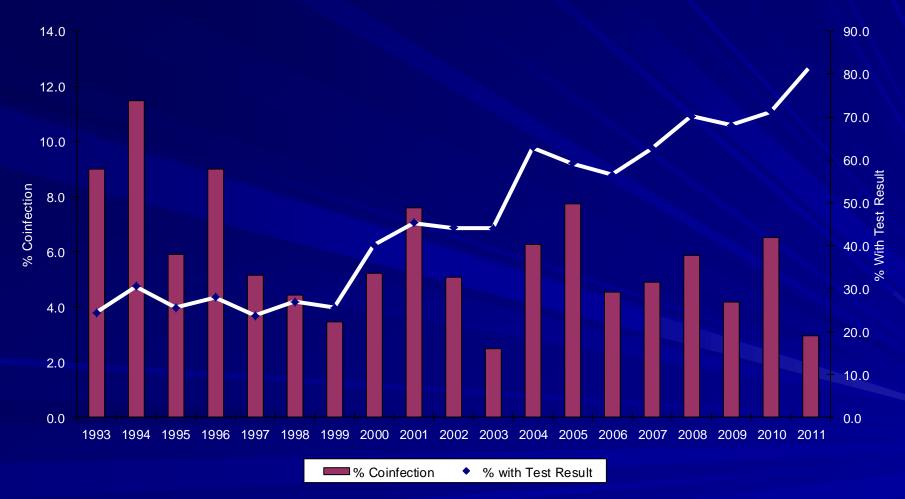
# Substance Abuse and Homelessness Among Reported TB Cases, Michigan, 2005 – 2011



### TB Drug Resistant Trends, Michigan, 2000 – 2011



## Trends in HIV-TB Coinfection, Michigan, 1993-2011



#### Questions?

Thank you!

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